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The Role and Potential of Social Intranet in an Organisational Context

A Case Study of Yleisradio - The National Broadcasting Company of Finland

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Abstract

This thesis explores the relationship of social software and organisations. It discusses how social intranet can create value for the adopting company, what impact and role it has inside an organisation and how organisation can generate return on investment for social intranet. The literature presented in this paper establishes an understanding that social knowledge management software does not create value for organisation by itself, but that its value is strongly dependent on the context it is implemented. Although we refer to technology and IT while discussing about social intranets, the adoption of these type of systems should be regarded for being much more than pure technical projects. The literature presented takes a comprehensive approach in the purpose of understanding the complexity of the topic, where a variety of factors influence the outcome of software implementation and value of utilisation. In the context of organisational information and knowledge management-, internal communications- and collaboration development, organisational culture and managerial behaviour are key determinants for software's value creation. The case study of this thesis will provide a cross-section throughout the adoption project of social intranet Yle+. This thesis suggests that already starting from establishing project scope and system design, it is important that the organisation and its' people are involved in the process. The level of individual awareness, desire and knowledge - terms that are often encountered in the field of change management – are in key position in determining the success of IT implementation. Before the implementation can take place, it is crucial that the organisation is ready and positive for the adoption. Naturally, a successful adoption will create favourable basis for future development of work whilst providing a healthy basis for organisation-technology fit. The case study also suggests that organisation should prepare for change in how work is conducted inside the organisation. For extending the potential and significance of social intranet in an organisational context, new tools are suggested for requiring new approach in how work, collaboration and communications takes place. If the organisation is not capable, willing or brave enough to change the existing processes and communication methods, the value of social intranet is unlikely to reach its highest level. Therefore, this thesis suggests that compared to traditional static intranets and organisational databanks, the utilisation of social software requires change in how organisation works and

communicates internally. As the case study will show, the true potential of social intranet may be revealed after some time has passed from the adoption and this is something that may not have been comprehended in the original vision and motivation for adoption.

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1. Introduction

The way we live, work and communicate is changing continuously as technology is becoming more and more relevant to our everyday life. The development consisting of both human and technological factors creates both challenges and opportunities for individuals, teams and organisations in the context of virtual work and knowledge management. In recent years, organisations have been investing increasingly into IT systems for achieving more efficient and effective knowledge management. ICT solutions may vary between their design, features and purpose in what they are created for. When a simplistic technology-based knowledge management initiative can be thought as something of a platform for codified, static and recorded explicit knowledge, the development of technology together with continuous evolution in how we work are both driving towards modern information and knowledge management solutions (IKM). These solutions are focused on the social aspect of knowledge creation, use and sharing. As technology can be an enabler for positive information and knowledge management development and engage an organisation into change by introducing new opportunities, the trigger for change may also be drawn from inside an organisation. This may result in demand for new technological solutions. Although IT can be viewed as an enabler for development and something of a resolution for organisations to trust upon in their efforts of developing IT-enabled information and knowledge management practices, organisations do not always achieve the desired level of development. Despite high quality solutions, on-time and on-budget implementation of new technology, the outcome of these developments may not always meet organisations' vision and pre-set goals. In other words, the potential and benefits of new IT are not always realised. Why does this happen?

To provide a simple answer to the previous question, we can say that technology alone does not generate value. The literature will demonstrate that to achieve return on investment for the adoption of new technology, IT cannot be comprehended for being an isolated factor that could just be taken on board and that it would automatically start generating return on investment. On the contrary, the value and utilisation of technology is a much more complex topic, where much of its ability to generate value to organisations depends on a variety of employees personal and impersonal factors,

organisational culture, management and organisations' ability to change the way people work and how new solutions are accepted and embraced.

2. The Scope and Motivation of the Thesis

This thesis is motivated by the desire to understand the relationship of technology, organisations and people. As organisations are becoming more and more dependent on the people, information and knowledge management is becoming increasingly important for the organisational development and competitiveness. To simplify, this means that the better the organisation knows how to utilise its knowledge workers, the better it can perform in today's constantly evolving business environment. As the way we conduct work is becoming less dependent on time and place, the adoption of sophisticated ICT systems is often identified as means to achieve effective collaboration, communications and information flow between the employees. If we focus on social software, already the name of this type of technology suggests that the software is a tool for social activity – an activity that involves human behaviour and action. But what is the value of social software that is not embraced by the users? What happens if no one wants to use it or share any information on it? What if the user is afraid that his knowledge is being exploited by others or that the user is simply not motivated enough to support colleagues asking for guidance? By asking these types of questions, we can easily understand that when humans are the resource and users of the social technology-enabled knowledge management initiatives, the human behaviour, emotions and attitudes will strongly determine the success of these IT-related initiatives and ultimately determine value of ICT in organisational context (Prosci, 2018^c).

This thesis relies heavily to the idea that IT does not automatically create value to the organisation and that IT's return on investment is highly dependent to context it serves. The aim of the thesis is to gain practical knowledge about organisation's social intranet adoption and usage. It aims to create an understanding of how social intranet can create value to the adopting company, what role it has inside the organisation, and what opportunities it offers for virtual work, project management, collaboration and information and knowledge management practices. More specifically, we are interested in studying how, and under what circumstances (organisational context) does modern digital tools generate benefits to both individuals and organisations. By binding together literature that discusses about the relationship of organisation and technology, knowledge management, virtual work and change management, the thesis

will build upon an understanding about the interdependencies of factors and variables that influence the value of IT from an organisational perspective.

The thesis builds upon and continues from the bachelor thesis of Kaisa Hilden (2015) who is a subeditor and professional communications person in Yleisradio, - the Finnish National Broadcasting Company. Her thesis is about a project consisting the development and implementation of Google Apps for Work integrated social intranet called Yle+ in Yleisradio. The study of this thesis consisting semi-structured interviews is reflected to relevant literature focusing on knowledge management, virtual work, technology-enabled knowledge management and factors influencing the usage. The literature will show that the value and utilisation of ICT is a dynamic and evolving process requiring human actions, where ICT cannot be regarded as something that has a fixed value but more of a continuously evolving organisation-technology relationship. Moreover, a multi-disciplinary approach is required so that we achieve a comprehensive understanding of the relationship of technology, individuals and organisation. In this, the thesis will show that there are variety of factors, challenges and interdependencies influencing the implementation and usage of new information systems in an organisation, already starting from how knowledge itself is understood as an object and perceived as an asset. Already the first steps of visioning, design and implementation set the course for either failure or success – ultimately determining the value of ICT and its relationship with the adopting organisation. The case study follows a chronological order by assessing the organisation's development story from the beginning until the time where the implementation was already experienced, and the solutions were set at their place inside the organisation. For this stage we will utilise the thesis of Kaisa Hilden, the concept owner of Yle+ at Yleisradio and then extend to knowledge by interviews. Through understanding the early phases of development and the history of Yleisradio and Social Intranet, we are better positioned for discussion about the current status and relationship of IT and the organisation and extend the scope of the interviews further.

According to Hilden, the implementation of the system should be perceived as a success (KMH, 2017). As we are interested in understanding the factors enabling this outcome, the case study of this thesis aims at finding more practical information and knowledge about the challenges that the company experienced in the process, and

moreover, how these challenges were tackled. Similarly, we will look into the key factors that enabled success. The research reveals that great emphasis should be given to the preparation of the project where the elements of demand and solution are brought together. This pre-implementation phase defines the direction of organisational development in the context of virtual work, collaboration and information and knowledge management strategy. In other words, the early phases sets up clear goals for *“What are we trying to achieve by the adoption?”* and *“How can we achieve it?”*.

For information and knowledge, interviews were held with The Head of Strategy of the Productions Department, Pihla Allos, and Kaisa Hilden. Although Hilden is satisfied with how the solution was developed and taken onboard for the usage of individuals, teams, managers and departments, this thesis proposes that this phase is only the beginning for opportunities in realising individual and organisational benefits and value for the adoption. A successful implementation project provides an excellent start for an effective organisation-technology relationship, but it is the post-implementation phase that will, hopefully, start generating true return on technological investment whilst enabling value creation in organisational usage. The interviews with Hilden and Allos revealed that Yle+ is embraced and found to be useful in their work, but that there is also much potential left in the system that is yet to be realised. Much of the success and value of the solution is dependent on factors other than technology and the solution itself and to get here, change and both individual and organisational development are required.

The literature discussed in this thesis enables us to understand how personal and impersonal factors influence individual behaviour. As this scope is natural in the sense that user activity and behaviour is one the most fundamental attributes in the value creation of social software, one of the main goals of this thesis is to gain knowledge about how benefits and value of the adopted services can be extended to greater organisational level and context. This is an important and interesting discussion as business owners and managers are naturally interested in investing transformation that truly create value for an entire company. Through the selected sources of literature, the organisation-technology fit is approached from a strategical perspective and the findings from the case study are reflected against the key findings in scholars’

publications. The presented literature and case study in this thesis aims to provide us with information, knowledge and answers to the following questions:

Q1: “What are the most important aspects and challenges to take into consideration in the design and implementation project of social virtual tools, so that the organisation would have favourable basis for exploitation of the IT and its’ potential in finding true return on investment in the future?”

Q2: “What type of organisational context and culture is favourable for greater utilisation and value of social intranet?”

Q3: “What type of managerial actions and organisational transformation is required for achieving greater return on technological investment that is highly dependent on social activity?”

The previous questions are important for practitioners as by increasing our knowledge about the relationship of technology, individuals and organisation, the business value of social software can be more easily illustrated, justified. By increasing our understanding regarding the above, the utilisation of social software can be seen for having greater chances for higher return on investment.

3. Knowledge Management & Technology

At this point we must be more specific about the type of technology we are referring to when we speak about modern knowledge management solutions such as social intranets, as well as about tools supporting information and knowledge management. In pursuance of extending our understanding about the requirements of modern work and modern IT solutions that are used in information and knowledge management, the following chapters take a deeper look into the characteristics and definition of knowledge itself. This will help us in defining how modern knowledge management systems, social software and social intranets differ from the more traditional IT/ICT solutions. The literature enables us to understand why traditional solutions that are designed for static information and knowledge management may not be suitable for organisations whose main asset are the people and the knowledge and skills that these people possess. The way we work is developing simultaneously with the development of ICT, where digital work provides us with new opportunities that are less dependent on time and place. The following sections discuss about the two contradicting perspectives; the objectivist and practise-based views on knowledge. Different understanding of knowledge management and knowledge itself may influence the expectations given to the technology in the context of knowledge management and determine what type of technology is adopted into an organisation and why there is a demand for social virtual platforms, services and tools. Although the development of how individuals and organisations work is clearly a major factor generating demand for ICT, already the fundamental understanding of how knowledge itself is understood and managed acts as a determinant for IT that organisations use in their information and knowledge management processes.

Many organisations operate in complex, dynamic and highly competitive global environments and in this environment, knowledge is widely recognised as the main source of competitive advantage (Chen & Huan 2007). Rapid changes in modern business environment has led organisations to adjust and update the knowledge they possess and in this context, both academics and practitioners have been increasingly interested in understanding how technological advances could be utilised for achieving efficiency and improvements in knowledge management activities such as knowledge

creation, knowledge sharing, and knowledge representation and retrieval (Ale et al. 2014).

Commonly, knowledge management is understood as information system implementations that enable the previously mentioned processes. Technological development and adoption are often viewed as being the key success factor in the attempt of increasing organisations' effectiveness, efficiency and competitiveness (von Krogh 2012; Li et al. 2016). The development of information technology and knowledge management in the attempt of creating competitive advantage has been one of the major concerns of managers and scholars, where IT-enabled knowledge management capability is identified as being the core competence of an organisation to enhance individual performance, innovation, organisational capabilities, and competitive advantage. The work of Porter and Millar (1985) are an example of this technological focus, as the authors argue that technology is crucial for organisations' survival and growth and that new information technology is crucial in the creation of substantial and sustainable competitive advantage of firms. The general focus on ICT is also acknowledged by Arvidsson et al. (2014), as they point out that claims underlining the role of technology as a strategic investment enabling companies' long-term survival are often regarded as truisms. Detlor (2010) on the other hand, points out that *'information management is often equated with the management of information resources, the management of information technology (IT), or the management of information policies and standards'* (pp. 2445). As the significance of ICT is well acknowledged among practitioners and scholars and that its role and value are likely to be tied into a context, firm, industry, purpose and usage, there is no doubt that technology plays an important role in modern business and modern information and knowledge management (De Toni et al. 2011).

3.1. The Objectivist Perspective on ICT-enabled Knowledge Management

According to Hislop (2013), there has been a trend among organisations to adopt the objectivist perspective on knowledge and invest in solutions that would support knowledge codification, saving and transfer. This perspective considers knowledge being a discrete, explicit object and therefore one of the main roles of technology is to

serve as a platform for searchable knowledge repositories and libraries of documented knowledge. Examples of this type of explicit and somewhat tangible knowledge documents could be such as standard operating systems, troubleshooting checklists, different protocols, and so on. The development of these so called traditional IT/ICT systems are often based on to the objectivist perspective on knowledge.

The objectivist approach to technology-enabled knowledge management has, however, generated criticism among scholars. Styhre (2003) points out that the literature on knowledge management suggests that *'there is little patience for an organizational resource that cannot be reduced into a number of categories and skills, and criticizes the codification of knowledge representation approach'* (cited in Ale et al., 2013, p. 75). The codification process of knowledge causes a loss of context and it could be even argued that not all tacit knowledge can be converted into an explicit, transferable form that could be managed and controlled through repositories (Ale et al., 2013). According to Currie and Kerrin (2004), a major trap in the development and implementation of information systems has been characterised by epistemological assumptions (objectivist perspective) that are guided by misunderstanding and limited perceptions for buzzwords such as knowledge and information. Moreover, this type of approach and understanding of knowledge could generate a risk of failure to technology adoption where knowledge management team's understanding over the characteristics of 'what it is that is to be managed' could result in a situation where even the most socially featured system could become an archive for collective memory at best.

3.2. The Social Software and Practice-based View on Knowledge Management

Due to criticism and practical experiences, knowledge management has now begun to shift from technological focus toward exploring the social relationships through which knowledge is created, located and shared (Newell et al. 2009). In an organisational context that are increasingly utilising virtual tools, digitalisation and mobile work, the adoption new type of social intranets is now common in all kinds of organisations that are looking into boosting virtual work, internal work and IKM practices (Baptista et al.

2010). These social systems are designed to support group interaction towards establishing communities and creating and exchanging content, as: *'In contrast to previous approaches in technology-centered knowledge management initiatives that are characterised by central control, proprietary knowledge repositories with structured and controlled search and access. Today the trend is toward knowledge management that has social attributes. The new social software provides an alternative to the traditional models with open and inexpensive solutions'* (von Krogh 2012). Hinchcliffe and Kim (2012, cited in Han et al. 2015) state that social business is highly effective and more potent new way of working.

It is reasonable to state that work and knowledge work is becoming increasingly dependent on virtual platforms and tools that enable efficient communications, collaboration which are having less dependencies on time and physical proximity between teams and individuals. In contrast to more traditional solutions characterised by emphasises on knowledge repositories, social software solutions are also including collaborative tools and features into the systems. These are such as groupware, email, chat, electronic forums and conferencing, communication and collaboration services (Wang & Wang 2016) that support internal information sharing, collaboration and self-servicing of key processes (Baptista et al., 2010). Regardless of what these systems are called (Enterprise Social Network, Web 2.0, Social Intranet etc.), their characteristics are strongly connected with practice-based perspective on knowledge by giving great importance over flatter organisational structures, more decentralised power, cross-departmental networking and collaboration, whilst emphasising project driven culture, and individual creativity and initiativeness (Damsgaard & Scheepers 2001).

Communications and social perspective of work are becoming increasingly relevant when knowledge management is not seen only as a matter of building large electronic databases, but of managing and connecting people inside of an organisation (Alvesson and Kärreman, 2001; Blackler, 1995; Earl, 2001).

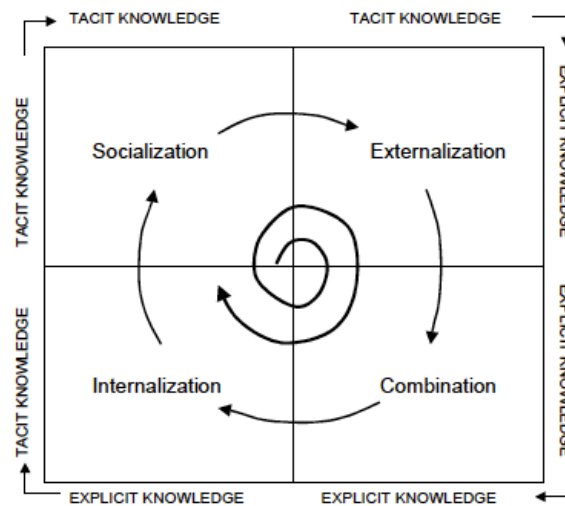


Figure 1. Nonaka's and Konnos (1998) model of organisational knowledge creation processes (Source: Damsgaard & Scheepers 2001)

One of the most famous concepts regarding knowledge creation was created by Nonaka and Konno in 1995, whose SECI model (Figure 1 above) describes how new knowledge is an outcome of interactions between tacit and explicit knowledge. From the knowledge management perspective, these two typologies differ in their characteristics. Hislop (2013) defines explicit knowledge as objective, standing above and separate from both individual and social value systems which can be codified into a tangible form. Tacit knowledge on the other hand represents knowledge that people possess, and which may importantly shape how they think and act, but which cannot be fully made explicit. Tacit knowledge is therefore personal in nature and it is also challenging, if not impossible, to be disembodied and codified.

According to Nonaka (1998) the SECI model adopts the concept of *Ba*, a word that translates roughly to mean *Place* in english. '*Knowledge is embedded in Ba (in these shared spaces), where it is then acquired through one's own experience or reflections on the experiences of others. If knowledge is separated from Ba, it turns into information, which can be then communicated independently from Ba. Information resides in media and networks. It is tangible. In contrast, knowledge resides in Ba. It is intangible*' (Nonaka 1998, pp. 40-41). Although Nonaka's and Konno's view and understanding about knowledge follows the dominant Western Philosophy where individual is the principal agent who possesses and processes knowledge, and that knowledge begins with the individual, their Japanese approach also recognises the

important role of the interaction between the individual, company and groups in the creation of organisational knowledge (Takeuchi 2006, in Takeuchi & Shibata 2006).

The SECI model illustrates two important aspects of knowledge management by underlining the significance of human actors as being the source of knowledge and by suggesting that organisational knowledge creation is strongly linked with social activity. These two notions become ‘determinants’ in understanding how practical knowledge management and knowledge is influenced by two different perspectives about the characteristics and nature of knowledge itself. According to Hislop (2013), these two distinctive epistemological perspectives characterise knowledge in extremely different ways. Where objectivist perspective focuses on the *‘codification and collection of knowledge, create mechanisms to allow this knowledge base to be searched and accessed, such as setting up a searchable database and encouraging staff to codify their knowledge and store it there’*, the practice-based perspective on the other hand facilitates *‘interpersonal knowledge sharing and processes of perspective making and taking through diverse forms of interaction and communication’* (pp. 43).

Although the practice-based perspective on knowledge suggests that tacit and explicit types of knowledge should be regarded as being inseparable instead of being separate, the practice-based view is more coherent with the SECI model as it identifies the development of knowledge as occurring on an on-going basis through the activities that people undertake. A more detailed comparison between the two dominant perspectives on knowledge is presented in table 1:

Table 1. The Two Perspectives on Knowledge (modified from: Hislop, 2013)

The Objectivist Character of Knowledge	Practice-Based Characteristics of Knowledge
Knowledge is an entity / object	Knowledge is embedded in practice
Based on positivist philosophy: knowledge regarded as objective ‘facts’	Knowledge as multidimensional and non-dichotomous
Explicit knowledge (objective) privileged over tacit knowledge (subjective)	Knowledge is embodied in people and socially constructed

Knowledge is derived from an intellectual process	Knowledge is culturally embedded and contestable
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Although the chapter here introduced a mixed set of knowledge varying from new ICT solutions all the way into cogitating what knowledge is and how it can be managed, I consider this as being an important starting point in our journey to understand why the implementation and utilisation of a social intranet is a complex challenge for organisations. As already the definition of knowledge and understanding its existence can be challenging, it becomes clear that the management of it – a process consisting technology and humans – is not a task to underestimate.

4. Towards a Modern Organisation-Technology Fit

The previous chapters have identified the evolution and direction of development that both organisations and technology have experienced and are experiencing. It is reasonable to state that work, information and knowledge management and organisational way of working (referring to e.g. culture, processes, collaboration, knowledge management) is becoming increasingly dependent on virtual platforms and tools that enable efficient communications and collaboration which are having less dependencies on time and physical proximity between teams and individuals. The evolution and transformation are creating both new challenges and opportunities for the organisations in their pursuit for efficient and well-functioning ways to conduct work.

Newell et al. 2009 argue that Information Age is *'undoubtedly having a visible impact on the way of organisations are being structured. Many have indeed shifted away from the traditional command and control structures of Taylor's time (the classic bureaucracy) towards flatter, decentralized structures and more flexible, open-ended, fluid and networked arrangements'* (pp. 23). The demand for IT and knowledge management systems has evolved beyond its purpose for providing platform for static information and knowledge. Now more emphasis is given to the fact that that a successful implementation and use of these systems requires adoption of technology that fits the organisational culture and environment where it is put in effect. The adoption of technology-enabled knowledge management systems is a complex process that is not just a technical issue, but where organisations and IT are required to match each other.

Aidemark (2004) says that generally the design of information systems should be adapted to the organisational environment where the information systems are supposed to function. In other words, Aidemark (2004) suggests that ICT could 'drive' or 'force' organisational change. This technology-driven view on organisational change is challenged by the deterministic approach to the relationship of technology and organisation, where it is assumed that *'either organization somehow determines which technology can be adopted or that the adoption of technology determines what kind of work can be carried out'* (pp. 56). Orlikowski (2007), on the other hand, suggests that technology and organisational structure and / or processes are constitutively

entangled. *'The concepts of technology and organization cannot be separated from each other because they are 'mutually constituted'' and that 'technology and its use are each constituted by the other - each shape and are shaped in turn by the other'* (cited in Newell et al. 2009, pp. 57).

The following chapters will take a further look at understanding the relationship between organisations and technology through presenting literature discussing how organisational, personal and impersonal factors influence individual behaviour and technology acceptance. To start with, we will focus on change that is evident and even more, required, in new technology adoption.

4.1. New Technology Signifies Change

As organisation's knowledge management initiatives are increasingly being driven by the effort of enhancing the effectiveness and efficiency of organisations' knowledge management through facilitating and supporting processes of knowledge creation, storage, retrieval, transfer and application, *'the emergence and use of different knowledge management systems (KMS) have led many researchers to be interested in examining whether KMSs really work and finding out factors of their success'* (Ale et al. 2014, pp. 74). Similarly, it is important to understand what are the factors that may cause challenges and even failures of organisations adopting new technology. As Li et al. (2016) point out, the implementation of knowledge management initiatives in an organisation is not an easy task and that some researchers estimate that the failure rate of these projects and processes could be as high as 50-70% in total (Akhavan et al., 2005, cited in Li et al., 2016). So why does this happen?

Ale et al. (2014) state that high percentage of systems designed for improving organisational information and knowledge management fail due to over optimistic expectations on their capabilities and that one of the main issues is that organisations are too focused on IT. There is a lack of understanding true usefulness of knowledge management models and knowledge itself. *'Early models and knowledge classifications (for example, Nonaka's tacit / explicit conversion processes) have been useful in helping to understand the nature of knowledge in organisations but do not*

show how to make effective use of knowledge' (Ale et al. 2014, pp. 75). Despite the fact that implementation failures may occur due to poor technical features and weak design of the implemented ICT systems, it is suggested that *'ICT-enabled knowledge management initiatives have been unsuccessful, arguably because they have focused almost exclusively on technological issues and typically played down, if not completely ignored social, cultural, and political factors which have been shown to be the key in influencing the willingness of people to participate in knowledge management initiatives'* (Hislop 2013, pp. 205).

Too often a project team ignores the people side of change as they focus on the technical aspects of their solution (Prosci 2018^c). This means they do not implement efficient change management practices into their projects. *'Whether in the workplace, in your community or in government, the bridge between a quality solution and benefit realization is individuals embracing and adopting the change'* (Hiatt & Creasey 2012, pp. 1). The motivation for new technologies, improved processes, better tools and new organisational designs is to bring organisations into the desired future state, but without people, a perfectly designed process or technology creates no value to the organisation and too often organisations assume that change at individual level will just happen. As the above-mentioned changes are considered organisational changes, these will ultimately require certain individuals to change how they do their work. The collective outcome and benefit realisation of organisational change is dependent on how employees will engage with it, what is the percentage and level of employees' engagement to change and how fast will employees embrace the change. With poor human involvement, the change is likely to be viewed as a failure and the objectives of the initiative will not be met (Hiatt & Creasey, 2012).

4.2. Frameworks for Managing Change

The discussion above clearly illustrates that any change in an organisation is likely to have an impact on the employees and individuals working in the company. It may not even be rare that the change management, and the people-side of a project, is ignored completely. Although the previous chapters identify the variety of personal and impersonal factors that all have a role in determining the success of, for example new

technology introduction, the complexity, nature and high number of challenges may easily become an obstacle for project teams responsible for the development, implementation and utilisation of ICT-related knowledge management services such as social intranets. What change management suggests is that the recognition of challenges is not enough to guarantee success, but that project teams and organisation have to engage in actual management of these and disable factors that are identified as risks for a project. Indeed, *'change management is the discipline that guides how we prepare, equip and support individuals to successfully adopt change in order to drive organizational success and outcomes'* (Prosci 2018^a). At the core of change management is the people-side of change.

One of the most famous change management frameworks was developed by Kurt Lewin in 1947, when he introduced the three-step change model. His theory of change is commonly referred to as Unfreeze, Change, Freeze. The model is often criticised for being too simple but many other change models are based on this and it is considered to be relevant still today (Cummings et al. 2016). In Lewin's model, the first step is about preparing for change where views and feelings that see change as positive and even necessary are important variables that establish basis for the actual change that becomes second in the order. When the actual change occurs, Lewin viewed this as being a process where the actions that the change requires are taken. In this, the people move towards the 'new way of being and doing'. After the change has occurred, the last step of freezing (or refreezing) is about establishing stability and sticking into whatever processes and behaviour change has introduced (Connelly, 2016).

One extension of Lewin's model was created in 1958 by Lippitt, Watson, and Westley (Kritsonis, 2004-2005), where they created a seven-step theory that focuses more on the role and responsibility of the change agent than on the evolution itself. The seven steps are:

1. Diagnose the problem.
2. Assess the motivation and capacity for change.
3. Assess the resources and motivation of the change agent. This includes the change agent's commitment to change, power, and stamina.
4. Choose progressive change objects. In this step, action plans are developed and strategies are established.

5. The role of the change agents should be selected and clearly understood by all parties so that expectations are clear. Examples of roles are: cheerleader, facilitator, and expert.
6. Maintain the change. Communication, feedback, and group coordination are essential elements in this step of the change process.
7. Gradually terminate from the helping relationship. The change agent should gradually withdraw from their role over time. This will occur when the change becomes part of the organizational culture.

Another change management model was developed by Prosci after a former engineer and programme manager Jeff Hiatt, the founder of Prosci. He noticed that the management of the people side of change is the key factor in determining the success of change projects. The company has now conducted more than 20 years of practical research about change management and has specialised in providing practical guidance, tools and frameworks so that individuals, organisations and enterprises can engage in change successfully (Prosci, 2018^a). Similarly to Lewin's three-step model, Prosci categorises the process into three phases where each phase contains activities, planning and preparation that will enable change to follow a systematic approach and invest in planning and preparation.

Phase one in Prosci's 3-phase process is about preparing for change. In this, the change management team defines change management strategy, prepares the change management team and develops a sponsorship model for the project. In phase two, the team manages change by developing change management plans and takes actions so that the plans are implemented. Step three reinforces the change by collecting and analysing feedback, diagnosing gaps, managing resistance and ultimately, implementing corrective actions and celebrating successes (Prosci, 2018^b).

For practical guidance, Prosci has created an individual change model, ADKAR, that represents five milestones an individual must reach so that change can take place successfully. These milestones, elements or objectives are designed to act as building blocks for change as the abbreviation signifies *Awareness* of the need for change, *Desire* to support and participate in the change, *Knowledge* of how to change, *Ability*

to implement required skills and behaviour, *Reinforcement* to sustain the change. Accordingly, these objectives must be achieved chronologically with individuals in order for change to be implemented and sustained.

Table 2. Factors influencing each element of the ADKAR model (Hiatt, 2006, pp. 45)

ADKAR elements	Factors influencing success
Awareness of the need for change	<ul style="list-style-type: none"> • a person's view of the current state • how a person perceives problems • credibility of the sender of awareness messages • circulation of misinformation or rumours • contestability of the reasons for change
Desire to support and participate in the change	<ul style="list-style-type: none"> • the nature of the change (what the change is and how it will impact each person) • the organizational or environmental context for the change (his or her perception of the organization or environment that is subject to change) • each individual's personal situation • what motivates a person (those intrinsic motivators that are unique to an individual)
Knowledge of how to change	<ul style="list-style-type: none"> • the current knowledge base of an individual • the capability of this person to gain additional knowledge • resources available for education and training • access to or existence of the required knowledge
Ability to implement required skills and behaviours	<ul style="list-style-type: none"> • psychological blocks • physical abilities • intellectual capability • the time available to develop needed skills

	<ul style="list-style-type: none"> • the availability of resources to support the development of new abilities
Reinforcement to sustain the change	<ul style="list-style-type: none"> • the degree to which the reinforcement is meaningful and specific to the person impacted by the change • the association of the reinforcement with actual demonstrated progress or accomplishment • the absence of negative consequences • an accountability system that creates an ongoing mechanism to reinforce the change

As one of the challenges of measuring the effectiveness and success of knowledge management initiatives, the phases of *Ability* and *Reinforcement* in the ADKAR model signify the time in change project where the project's goals and targets, if met, will start generating return on investment. As change may naturally be driven by business goals and requirement or demand for organisational development, one of the goals of a successful project is linked into measuring how pre-set business objectives are met. The second measurement comes from the organisation's migration through each element of the ADKAR model so that individuals have the ability to implement the change and that reinforcements are in place to sustain the change (Hiatt 2006). Despite having a high level of Awareness, Desire and even Knowledge about what the change is about, how we want it on personal level and what change requires from us, these are not enough to deliver value as the individuals and organisation are yet lacking the ability to embrace and implement change in practice.

4.3. Technology Acceptance Model (TAM) & Unified Theory of Acceptance and Use of Technology (UTAUT)

As systematic change management approach is identified for increasing the chances for successful development, TAM and UTAUT can be used similarly for planning change strategies and understanding how different variables may have an impact on how new technology is accepted among individuals. Technology Acceptance Model (TAM) is one of the most influential models used for understanding the usage intention and acceptance of new technology, suggesting that users' behaviour of using technology is determined by their behavioural intention, which is influenced by their perceived ease of use and usefulness of the technology (Kim 2012). The model was originally developed by Davis (1989) and it is concerned with how and when the users decide to use and adopt the new technology. Accordingly, the usage is theorised to be influenced by (1) perceived ease of use which is defined as *"the degree to which a person believes that using a particular system would be free of effort"* and (2) perceived usefulness of the technology, that represents: *"the degree to which a person believes that using a particular system would enhance his or her job performance"* (p. 320).

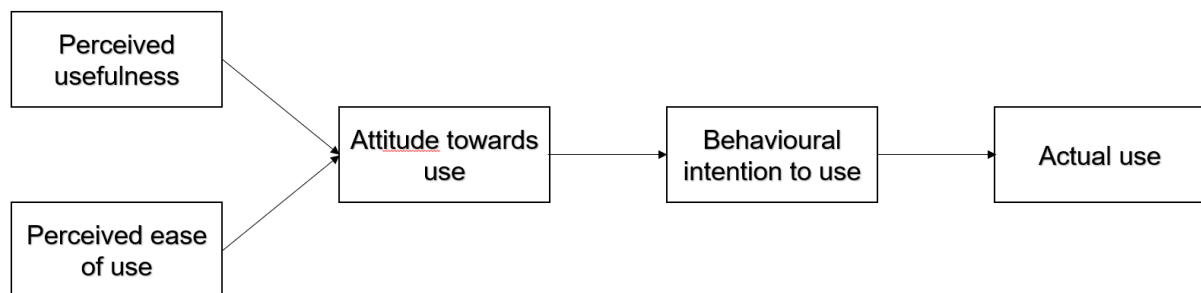


Figure 2. Technology Acceptance Model (TAM) developed by Davis (1989) (Source: Davis 1989)

Since the first publication, the technology acceptance model has been developed by different researchers. The model has been either extended or used as a framework for additional model due to identified limitations of the original version. As a result, the efforts in explaining user acceptance of new technology is often described as one of the most mature research areas in the contemporary information systems. Additionally, to the growth in interest has had positive outcomes by contributing to greater

knowledge about organisations' relationship with information technology, the multiplicity of models, theories and frameworks have also tendency to generate issues with selection and usage. Venkatesh et al. (2003) and Agarwal & Karahanna (2000) call for a more holistic and unified approach to the topic as *"the researchers are 'confronted with a choice among a multitude of models and find that they must pick 'pick and choose' constructs across the models, or choose a 'favoured model' and largely ignore the contributions from alternative models"* (Venkatesh et al. 2003, p.426).

Lee & Kim (2009) point out that *"TAM postulates that external variables act indirectly by influencing perceived ease of use and perceived usefulness"* (p.192). Accordingly, examples of extrinsic factors influencing the acceptance of information technology in other studies include computer training, support of management, level of experience and prior experience. In order to understand better what factors influence perceived usefulness, perceived ease of use, and usage of intranet, the authors extended the original version of TAM (figure 3) and included external factors into their research model which are identified for having effect on subjective norm and therefore affecting usage of intranet indirectly. The authors define the subjective norm as being related to the social pressure that is experienced by individuals and it is defined as *'an individual's perception of whether people important to the individual think the behaviour should be performed'* (p.195).

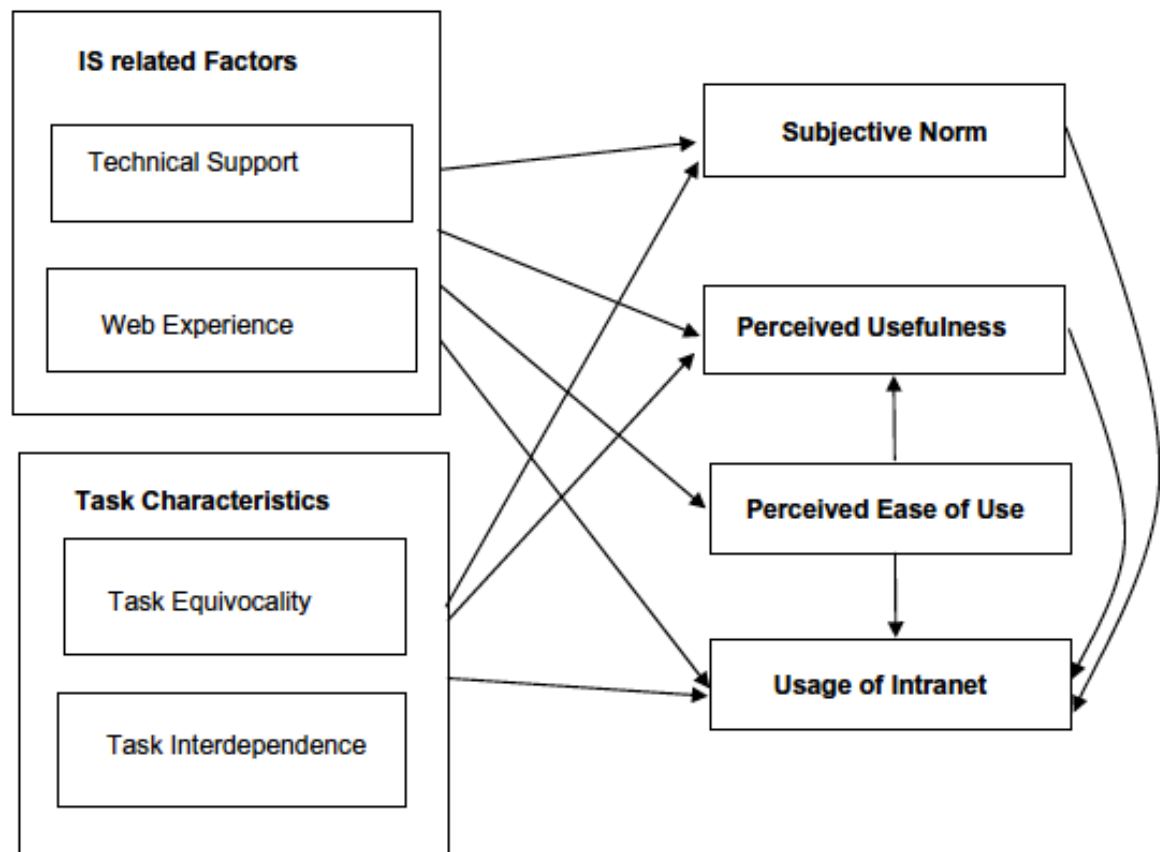


Figure 3. Extended research model based on TAM (Source: Lee & Kim 2009)

An example of the broader approach to the topic could be the identification of technical support being incorporated with education, technical assistance and the availability of opportunities to enhance users' IT efficacy. This activity can prevent situations where people would not use information just because they have poor technical understanding of systems. Jennex and Olfman (2002, cited in Ale et al. 2014) point out that Unified Theory of Acceptance and Use of Technology (UTAUT) offers us a more comprehensive-type of framework aimed for assessing the likelihood of success for new technology introductions helping managers to understand the drivers of acceptance in an organisation (Venkatesh et al., 2003).

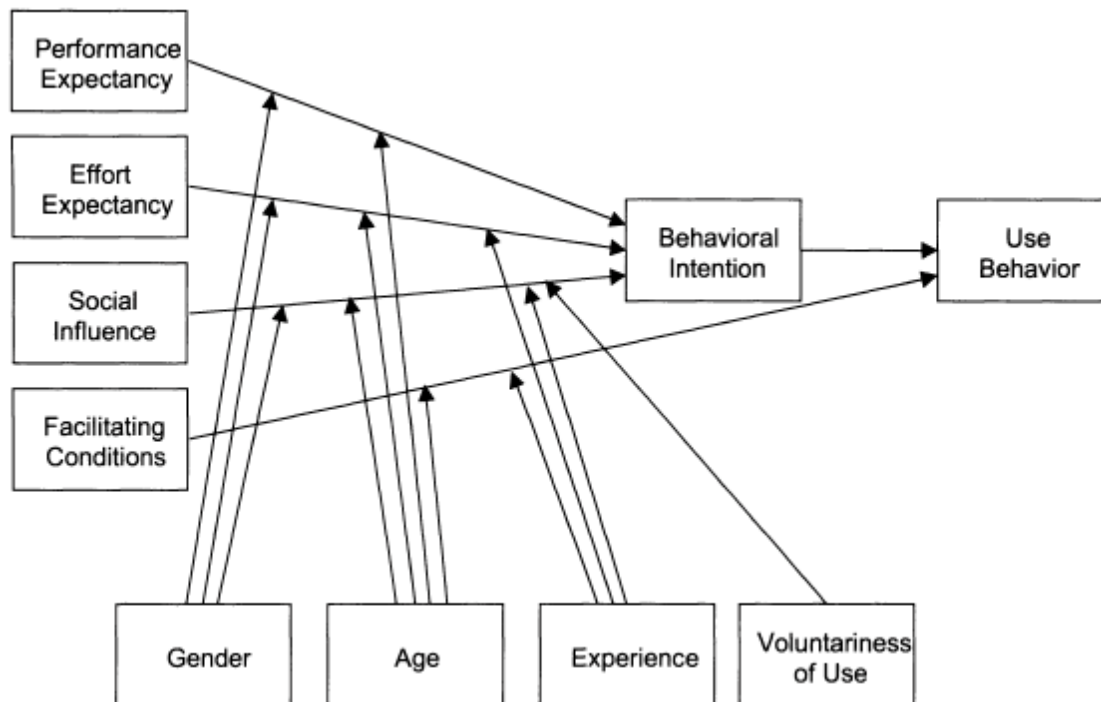


Figure 4. The Unified Theory of Acceptance and Use of Technology framework (Source: Venkatesh et al., 2003)

4.4. Commitment and Motivation for Engagement

In addition to the literature presented above, commitment has been found to have an influence on individual behaviour in the context of technology use. According to Butler (2003), institutional theory has been employed by information systems researchers to examine the development, implementation and use of traditional and web-based information systems. The theory emphasises the significance of social enforcement influencing individuals towards a particular targeted behaviour. Selznick (1949) defines several types of commitments as follows in table 3.

Table 3. Theory of commitment by Selznick, 1949, cited in Butler (2003)

Commitments enforced by uniquely organizational imperatives	These are usually implemented by policy decisions associated with system maintenance; consequently, they ensure that organizational requirements of order, discipline, unity, defence and consent are fulfilled.
Commitments enforced by the social character of the personnel	Social actors possess particular needs, levels of aspiration, training and education, social ideals and class interests; thus, influences from the external environment shape the commitments of organisational actors.
Commitments enforced by institutionalisation	An organisation's goals, policies or procedures achieves established levels, which restrict choice by enforcing commitment to behavioural standards.
Commitments enforced by the social and cultural environment	Organisational policies and outcomes are often influenced and shaped by social actors in the external social and cultural environment.
Commitments enforced by the centres of interests generated in the course of action	Sectional interests influence the formulation of policies and programmes in unintended ways; such unaligned commitments can lead to suboptimal outcomes.

The table above is in line with the researches of van den Hooff et al. (2011) and Boer et al. (2011), as the authors demonstrate how emotions and attitudes influence the motivation and willingness of employees' participation to knowledge management initiatives. Accordingly, the motivation of workers to participate in knowledge management processes is a key factor determining the organisation's success in the attempt of capitalising its human assets. In this, HRM practices can positively influence personnel's' commitment into the organisation they work for, given that 'the more a worker identifies with and is committed to the organization they work for, the more likely they will be to participate in organisational knowledge management activities' (Hislop,

2013, pp. 223). In general, an engaged employee is expected to deliver better results (Suarez, 2015), when focus on job design and reward systems can be considered as examples of the methods that organisation may use for achieving committed employees.

4.5. The Role of Managers and Organisational Culture in the Implementation and Usage of Modern Knowledge Management Systems

Drawn from the important notions for social and cultural factors influencing motivation and behaviour, a further look into the literature reveals that managers have a crucial role in the creation of favourable environment and culture for successful IT implementation and usage. Indeed, Han et al. (2015) stress the importance of organisations tackling the challenge of new ways of working and how social IT systems are governed so that technology enables organisational development. In this, Lee & Kim (2009) underlines the important task of management to encourage and support the usage of technological systems while enhancing individual learning and development of users' IT efficacy. Based on the above, the technical development of personnel should be regarded as a positive effort on behalf of an organisation, but additionally to this, there is a great demand for developing usage-supportive organisational culture and conducive environment. According to Li et al. (2016), managers in an organisation should reduce the possible resistance behaviour towards new knowledge management system implementation and use through personal communication and participation. In this, the managers should increase perceived social norms by encouraging the adoption of knowledge management system through publicity to form normative pressure and encourage to creative thinking and open company culture. The findings of Wang and Wang (2016) show that, indeed, top management is a key determinant of modern knowledge management implementation and successful usage, as they are in a position for arranging sufficient resources for the process and have positive impact to organisational climate for the implementation. The support and active participation of top management can improve internal communications, reduce resistance and enable the barriers threatening the change. Moreover, they can encourage and reward employees for their activity in knowledge

sharing practices. Through the creation of knowledge sharing culture in an organisation, the employees are influenced positively towards using knowledge management system. The findings of Chen and Huang (2007) supports the notions of Wang and Wang (2016), as the authors suggest that *'innovative and cooperative climate is positively related to social interactions; that when the organizational structure is less formalized, more decentralized and integrated, social interactions is more favorable; and that social interactions are positively related to knowledge management'* (p. 104). As the implementation and usage of social software and new digital tools represents a change in how people work, Deans (2010) identifies the importance of both governance and leadership in developing the organisation so that organisations transformation in how they operate and work will be successful. For this, the author proposes five leadership dimensions that are necessary for a company to become a 'social business'. These are: (1) greater information sharing; (2) a mindset for collaboration; (3) a willingness to relinquish some control, (4) more shared decision making; and (5) personal leadership growth (Deans 2010, cited in Han et al. 2015).

5. Work in Virtual Environment

The evolution of technology and transformation of organisations is creating both new challenges and opportunities for organisations in their pursuit for efficient and well-functioning ways to conduct work. Although ICT can generate new opportunities for inter-organisational knowledge transfer, much of its efficiency and success is dependent of a variety of factors that has to be taken into account in both individual and organisational levels as previously discussed. Virtual work and utilisation of digital opportunities in an organisational context requires new governance models and competencies on both organisational and individual levels. As we are already familiar with some of the key factors and variables influencing the acceptance of technology and information and knowledge management practices, this chapter takes a deeper look into the challenges that organisations, teams and individuals experience in the virtual environment. As the adoption of new ICT is clearly a task that *'does not just happen successfully by putting the system in its place'*, the following will demonstrate that motivation and acceptance for ICT may not still guarantee success in the development and create return on investment.

Lohikoski & Haapasalo (2013) argue that the outcome and level of success in collaborative actions between people and organisations is based on the quality of relationships that shape cooperation, trust, mutuality, and joint learning. Theoretical knowledge together with a practical case study in the context of virtual new product development (NPD) allowed the authors to form a framework highlighting the most crucial organisational and personal virtual competencies that are considered of being in a key role in organisational attempt for successful knowledge transfer in virtual environment. These are described in figure 5 below.

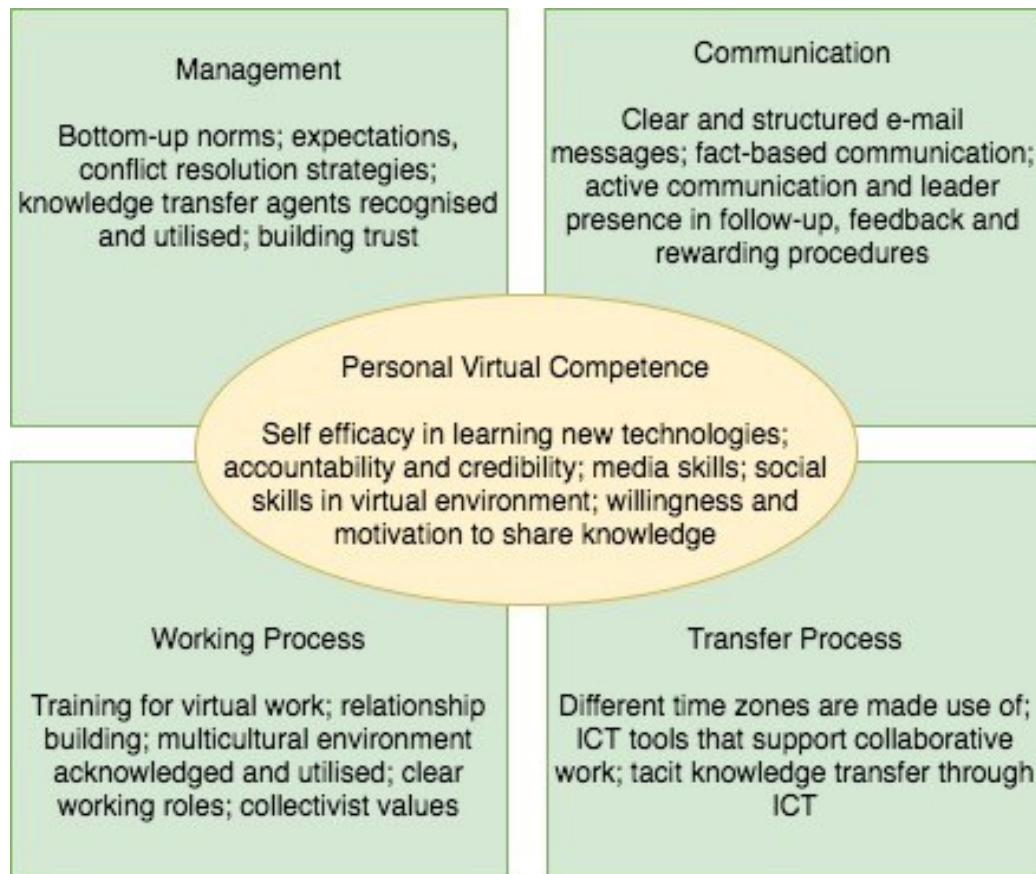


Figure 5. Organisational and Personal Virtual Competencies (Source: Lohikoski & Haapasalo, 2013)

Accordingly, and in contrast to virtual competencies contributing to successful knowledge transfer in the context of virtual team-work, Lohikoski & Haapasalo (2013) also identified several challenges that could act as potential barriers for knowledge transfer and as a result, weaken the performance of a virtual team. These are categorised into personal and organisational levels in figure 6 below.

Knowledge transfer barriers in personal level	Knowledge transfer barriers in organisational level
<ul style="list-style-type: none"> • Inability and unwillingness to listen • E-mail messages are extensive, lack structure and are written without taking recipients into consideration • Replying to messages by ones own routines and habits • No interest in connecting with team members at a personal level • Unwillingness to adapt new technologies • Inactivity in social media and social collaboration platforms • Lack of motivation in sharing information • Communication is done based on assumptions and feelings rather than on facts • Individualistic values 	<ul style="list-style-type: none"> • Absence of communication norms • No rules in versioning and sharing documents • Unreasonable amounts of ICT tools and systems • Communication and commenting on teams work is done on an impulse • Employees' routines at work do not match • Information stored in too many locations • Virtual meetings without planning, preparation and structure • Organisational structure that inhibits knowledge transfer • Absence of virtual feedback and rewarding procedures • Knowledge transfer agents are not recognised and utilised

Figure 6. Personal and organisational level knowledge transfer barriers (Source: Lohikoski & Haapasalo, 2013)

According to Lohikoski (2016), information processing is: *'the most used theoretical view to assess information sharing in organisations...It builds on bounded rationality, suggesting that due to the cognitive limitations of individuals, organisations develop idiosyncratic bases of information and knowledge, creating information processing needs'* (p.14). Aidemark (2004) explains that information processing can be approached from a cognitive or a community/social perspective. The social approach

focuses on knowledge as an interaction between people, while the cognitive approach understands knowledge as an information process of the human mind. Daft & Lengel (1986) argue that the two main reasons for organisational information processing is to reduce contingencies such as uncertainty and equivocality inside an organisation. The former mentioned refers to the availability of required information suggesting that when the amount of information increases, uncertainty decreases. Galbraith (1977) defines uncertainty as *'the difference between the amount of information required to perform the task and the amount of information already possessed by the organization'* (cited in Daft & Lengel 1986). Equivocality, on the other hand, refers to the level of ambiguity and confusion which results in multiple ways of interpreting and receiving information (Lohikoski et al. 2014).

In the context of virtual team communication, both uncertainty and equivocality are identified for being strongly dependent on the type and quality of communications, the type of knowledge that is intended to be transferred, and intermediates and tools that are used for communication. In this, Lohikoski with her colleagues point out that It is crucial for a virtual team to determine the most appropriate methods and tools for communications, so that the selected technological intermediate serves the purpose of each act of communication (Lohikoski et al. 2015). The relationship of the three variables is illustrated in figure 3.

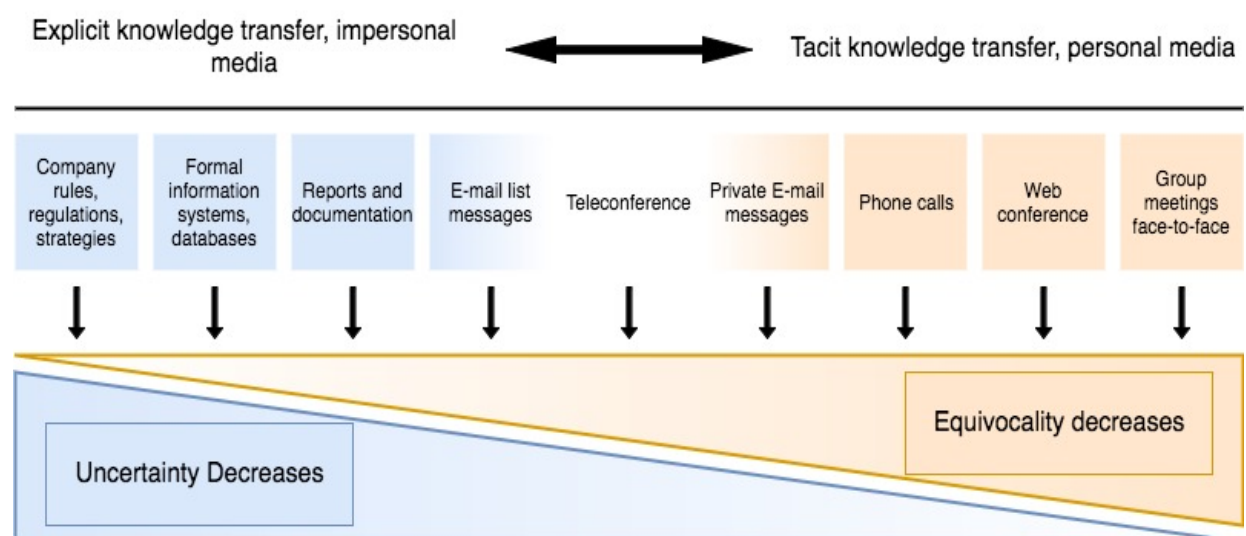


Figure 7. Equivocality and uncertainty increase or decrease in virtual team communication, depending on the type of knowledge intended to be transferred or the media used for communicating. (Source: Lohikoski et al. 2014)

Accordingly, the impersonal mode of information processing refers to '*communication that is facilitated with the use of pre-established plans, schedules, formalised rules, policies and procedures, as well as standardised information and communication systems*' (Lohikoski 2016, p. 14). In personal mode of information processing, individuals in an organisation serve as mechanisms for communication (Lohikoski 2016, p.14) and therefore much is dependent on personal virtual competencies that the members of a team or organisation possess. Group mode of information processing refers to mutual adjustment that is achieved by bringing people together for the purpose of communication (Lohikoski 2016) and naturally, the three modes of information processing are thought of having different selection of media (impersonal and personal media presented in figure 3).

Similarly to organisations' virtual competencies, information processing of an organisation is dependent on a variety of components associated with people, organisation and technology. Whereas the organisational and personal virtual competencies framework (figure 8) identifies knowledge transfer being dependent on personal and organisational virtual competencies, in the context of information processing these two variables are perceived as being connected through - and having an impact on organisations' integration mechanisms.

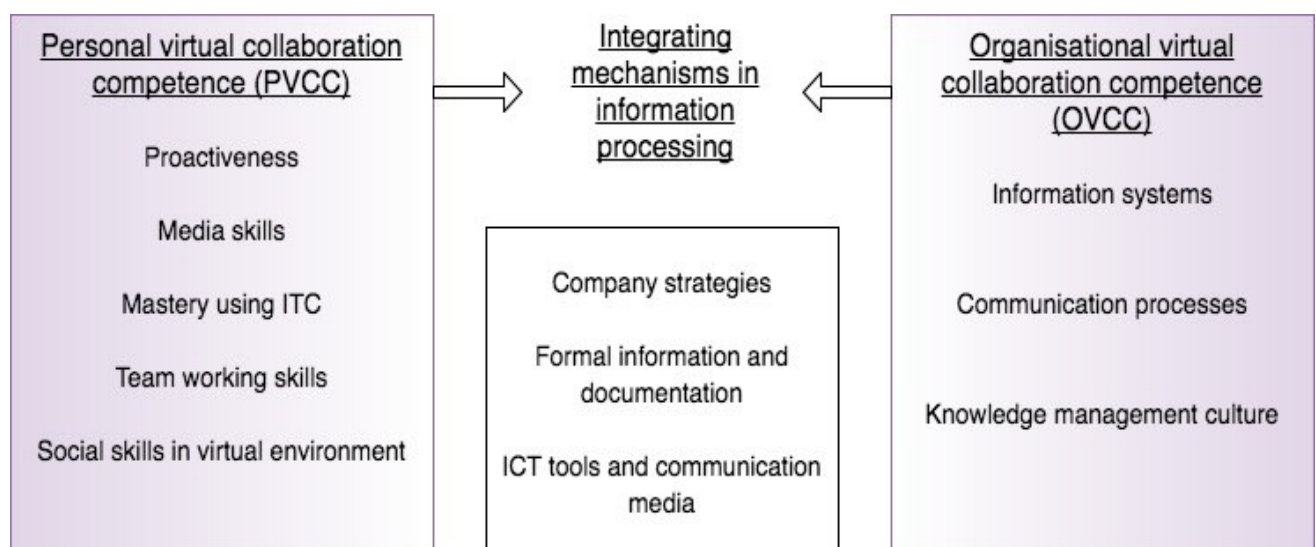


Figure 8. Relationship between virtual collaboration competencies and integrating mechanisms in information processing (Source: Lohikoski et al. 2015).

The discussion above demonstrates that the adoption of an IT does not automatically start transforming organisation into a new and better state, but instead can even complicate and damage the effectiveness and competence of organisation if people lack virtual competences, and if organisational framework and processes are not established. Virtual work requires a variety of competencies on several different levels and it introduces challenges that can be different from those of more traditional social 'face-to-face' interactions, work, communications and information and knowledge management practices.

6. Research Method

When we recap the literature presented in the previous chapters in our efforts to understand the potential and role of social intranets, it becomes clear that this cannot be achieved by examining the solution or service in isolation. Moreover, factors influencing an organisation's potential to gain high return on investment for social software cannot be examined and identified in isolation. Although the literature presented is limited in its focus, by binding selected literature about knowledge, organisational change, virtual work and user behaviour into the context of social intranet, we have increased our abilities to understand more about the relationship of the studied social intranet Yle+ and organisation Yleisradio and enabled the formation of research questions for this thesis (Table 4).

At core of the literature review are the notions urging for comprehensiveness in efforts for studying social software and organisations. According to Damsgaard and Scheepers (2001), many intranet studies have had a relatively narrow approach on intranets value evaluation. Instead of focusing alone on publications of organisational information in the system, *'we advocate the idea that to a large degree an intranet takes form after the context in which it is implemented and the organisational structure, history and traditions of earlier technology adoptions are important when seeking to understand its manifestation'* (p. 675).

Table 4. The research questions

Q1.	<i>"What are the most important aspects and challenges to take into consideration in the design and implementation project of social virtual tools, so that the organisation would have favourable basis for exploitation of the IT and its' potential in finding true return on investment in the future?"</i>
Q2.	"What type of organisational context and culture is favourable for greater utilisation and value of social intranet?"
Q3.	"What type of managerial actions and organisational transformation is required for achieving greater return on technological investment that is highly dependent on social activity?"

The primary data for this study was collected through three semi-structured interviews with two persons. The interviews had length varying between 60 and 90 minutes and utilised Yleisradio's internal material that were Powerpoint presentations and visualisations about the implementation of Yle+ (cited as Research material from Hilden in 2016) provided by the interviewees.

The chosen methodology for data collection was selected due to the qualitative nature of the desired data (Finn et al. 2000). Qualitative data is information that has been collected and not been quantified, as the aim is to understand its meaning within a particular context (Saunders et al. 2009) which is crucial for the topic of this thesis in the effort of understanding the relationship of ICT and organisations. One should remember that the qualitative researcher does not focus on the generalisation of results, as it seeks to the understanding of the interviewees experiences and perceptions (Corbin and Strauss 2008; Maykut and Morehouse 1994). The language and behaviour of participants are also essential elements of the data collection (Corbin and Strauss 2008). This type of data is usually collected from a small sample and is argued to be 'rich' in details that can be ambiguous and therefore open to different interpretations (Saunders et al. 2009). The interviews in this thesis were held in Finnish language and saved in audio format. The data was then later translated into English and recorded in written form.

As recommended by Cohen et al. (2007), it is important for the flow of the research as well as for the success of it to maintain a certain structure in the interviews. In more detail this means that the interviewer needs to be flexible, know how and when to ask the most appropriate questions, without jumping from one theme to another. Due to the expertise knowledge, experience and insight of the interviewees, the interviews can be described for being rather open discussions instead of following pre-determined interview structures. The emphasis of explanation and talk was maintained on interviewees' side as this took place naturally due to interviewees having personal interests to the topic.

As Silverman (2010) states validity, reliability and representativeness are associated with the quality of a research. Representativeness or generalisability can be addressed to a certain extent by clearly explaining the reasons for choosing specific cases to

interview (Silverman 2010). Due to the complex nature of the topic characterised by multiple context-specific variables, the representativeness of this research is rather limited. Validity on the other hand is about the extent to which the questions investigate what they are supposed to be analysing (Cohen et al. 2007). More specifically, it can be categorised into two types; internal and external. Internal validity refers to whether the hypothesised cause produces the given effect in the piece of research whereas external validity refers to the extent to which the results of the research can be generalised (Finn et al. 2000). This study aims for internal rather than external validity due to the above described information and suggestions (e.g. Damsgaard and Scheepers 2001) about context-specific approach. However, the case study is connected to the findings discussed in the literature review presented earlier in this thesis as the case study is identified for both contributing to and benefitting from the existing literature.

The interviews were held in three different occasions at the headquarters of Yleisradio in Pasila, Helsinki and at Musiikkitalo, Helsinki. One of the primary sources of information is YLE's subeditor Kaisa-Maaria Hilden who kindly agreed for two interviews (interviews cited as 'KMH 2016' and 'KMH 2017'). She was the main responsible and project owner of YLE adopting new digital tools and updating its intranet system. She has a strong professional background in internal communications and in her central position in the company. Hilden also wrote her own thesis - '*Social Intranet Supporting Business in Yleisradio*' (Hilden, 2015) about the project in 2015. This study is examined further and used as a starting point for interviews and formation of scope and research questions of this thesis. An additional interview was held with Pihla Allos (cited as 'PA 2016'), the Head of Strategy of the Productions Department after Hilden pointed out that Allos is well experienced in managing change projects and is well familiar with an effective usage of Yle+. As we aim to understand what is required for successful value creation of Yle+, what potential it has in organisational context and how the value of social intranet is identified, achieved and can be increased further, semi-structured interviews with the two experts of the topic is identified for being most suitable for the purposes of this paper.

The thesis adopts and modified 'time' classification of Wehrner et al. (2017) for clearance and structure. The case study of this thesis is presented in chronological

order in timeline starting from pre-implementation, then moving on to the actual implementation project and time right after the implementation, and finally resulting to the time when the interviews were conducted. This approach allows us to identify key challenges and best practices regarding the implementation, usage and future value creation of social intranet Yle+. With this, the value of this thesis is aimed to provide practical information for practitioners for different steps of the process of organisation utilising social software. The study is then reflected against previous research that was presented in the literature review.

7. Case study of Yleisradio and Yle+

In order to gain deeper understanding about the research questions as well as the themes and topics discussed in the literature review, the following chapter present a case study of Finnish National Broadcasting Company, Yleisradio, and their journey from developing and implementing virtual tools and knowledge management system to present post-implementation stage.

The following chapter aim at creating a comprehensive understanding of the motivation why the company decided to initiate a change and adopt Google Apps for Work integrated social intranet Yle+. In this, we want to find out what Yleisradio wanted to achieve, promote or change in their work and operations. After that we have an understanding about the motivation and goals for this change. The study aims to increase our knowledge about the critical project steps and managerial actions enabling the mitigation of challenges and risks. In other words, we want to answer to the question ‘How’ Yleisradio succesfully brought new solutions on-board and started using new digital tools.

After the implementation, Yleisradio has arrived at the phase where investments should generate return. As Hilden pointed out: *‘there were plenty of challenges (in the implementation) and there are plenty of challenges today (post implementation-phase)’* (KMH 2016). Importantly however, the nature and type of these challenges have changed as time has moved on from the initial stages of the change process towards present time. If one aims to find out how the pre-set goals and targeted benefits have become realised inside the company, a successful implementation should only be regarded as a positive start for the value creation process. The real value and benefits occur, or not, during the time what comes after the implementation.

As the literature has shown, a general acceptance of technology may not be all what is required for organisation benefitting from technology. Following the presented literature, the focus of the case study moves on to investigating how technology has had an impact on the company and how two communications and change management professionals evaluate the role and usefulness of the system at both personal and organisational level. This post-implementation focus moves on towards

gaining practical knowledge about the relationship of new social tools, social intranet, organisations, people and work. The study will make an effort in understanding the role of managers enabling the system's value creation for themselves, employees and for the organisation.

7.1. The pre-existing stage of digital tools

The previous intranet reform in 2008-2009 marked a change in the company's intranet design and purpose. Hilden (2015) points out that: *'Although intranet in YLE serves its purpose in organisational communications, it is also a place of and tool for internal communications taking place in line organisations, units, departments and teams'* (p.10). A view that highlight the significance of intranet through recognising its potential to be used in a wider organisational context and for extended organisational purposes, the company replaced the traditional organisation-oriented approach with a new user-oriented approach. Hilden concludes in interviews that the previous intranet in Yleisradio already had a great deal of social attributes in place in 2009. The features that are often defined with more traditional intranets were enhanced with significant advances, allowing the personnel to:

1. Post a comment on a selection of featured news (restricted rights)
2. Participate in the discussion forums with their own names
3. Comment the officiated blogs and write an 'open for all' type of blog
4. Use YLE-WIKI, a resource for information search
5. Publish content at the front page of YLE's intranet

(Source: Research material from Hilden in 2016).

At the time, Yle also had a selected set of digital office tools that were used throughout the company. The intranet was supported by two other software solutions; Microsoft Office Sharepoint 2007 and IBM Lotus Notes. Programmes such as Microsoft Word, Microsoft Power Point and Microsoft Excel create value for the organisation by their usefulness in the execution of tasks and duties related to everyday work in the office environment.

7.2. Motivation for change

At the beginning of the project of considering the adoption of Google Apps for Work and Yle+, Yle was engaged in venture that aimed to; the creation of inspiring physical working spaces, improvement of the social dimension work, modernisation of working culture and the adoption of digital office tools that are easy to use and perform well in their respective functions. The purpose of this venture was to achieve an organisational culture that is innovative and would support openness and transparency of the company and as a result, in 2012 Yle was facing an internal pressure to develop digital tools, organisational culture and virtual communications inside the company (Research material from Hilden in 2016). One specific purpose of the venture focused on developing the dialogue between the employers/managers and employees, where special attention was given over the mobility of work that is characterised for being less dependent on time and physical location.

The outcome of the venture revealed that 85 percent of the employees in Yle were hoping that the employer would show more support to distance work (Hilden 2015). Also, despite the fact that the existing tools were then and are now used widely on a global scale and that they can be argued to be some of the best-known brands in the industry, the software solutions in use did not deliver required level of value to the company and did not meet the requirements that the personnel had. According to Hilden (2015), the employees shared a view that the tools provided by their employer did not enable mobile work.

The Working Environment Improvement Venture (WEIV) also revealed that flexibility was a factor that was witnessed for increasing the efficiency of work. In this context, four out of five people reported that they consider themselves becoming more efficient and achieving more if they can choose where to work. Moreover, internal communication was also identified as an issue among the employees, where almost 20 percent of the employees argued that it simply does not work inside the company and that the existing intranet does not support this activity (Hilden 2015).

7.3. Aims and goals

After acknowledging the internal demand for change, ICT and Communications department initiated a research in the effort of gaining a comprehensive and more practical understanding over the experienced problems with the existing systems. With the support of an external consulting company in 2013, Yle also managed to create scope for the objectives and aims related to future technological development that comprises improvements in several aspects of work, collaboration and communications (Research material from Hilden in 2016).

‘Although it is alright if the actual work takes place in some other platform or place other than intranet... Different intranets have different roles and purposes, but already for years here in Yleisradio we have had the conception that intranet is the place and platform for work. Intranet has working spaces, it has documents and all other information’ (KMH 2016).

One of the main theme emphasised in the project was concerned with higher work efficiency. The research revealed that future solutions should contribute to mobile work and provide tools for both, internal and external, cooperation and collaboration. Opportunities for instant messaging, virtual meetings, real-time document sharing and editing together with virtual group work spaces were features highlighted due their importance for modern work (Research material from Hilden in 2016). These practical features can be thought of supporting different types of project work and processes inside the company.

From the perspective of finding and sharing information, high expectations were given to the intranet’s search function that, accordingly, should reach to all the content in the systems and also include the search of personnel and expertise profiles. This feature together with high technical competence are witnessed for contributing to both work efficiency and satisfaction among users (Hilden 2015).

Let alone the requirements for the usability and agility of the tools contributing the the work and communications inside Yle, much attention was also given to the visual

perspective of the design together with the content of the intranet. Arguments were presented for the dynamic, modern and visually appealing platform and that it should present today's world having spacious and simple structure. A positive and welcoming design are important attributes in generating positive experiences among users and it will also contribute to the usability of the product. The easiness of use and refreshing user experience were highlighted by the company's personnel and these are also something that the company gave great emphasises on in the software's development phase (Research material from Hilden in 2016).

The cultural strand additional to those of having more tangible technical features of the development highlighted requirements for organisational openness and transparency. The social aspect of communications enabling greater employee participation in conversation and content creation are factors that lead to higher employee engagement and boost the creation of new ideas and innovations. For this, the company should emphasise organisational culture of kind that would support and encourage its employees for communications and knowledge sharing whilst providing practical support and guidance through establishing practical standards for these (Hilden, 2015).

7.4. The implementation of Social intranet

The research conducted (as part of the venture described in chapter 7.2.) by the project team inside Yleisradio provided the team with a well-defined framework for the digital development. Based on this, the company was ready to create a concept that would match the technical requirements that company had internally and from this, the focus moved on to the software's implementation phase. In the early stage, the company formed a small core group and control group for the overall process. The control group consisted the Head of Communications Department, the Head of ICT Department, the Chief Information Manager, and later on, the Head of Human Resources Development (HRD). The core group consisted one representative from ICT-, HR-, Communications-, and Journalism department, who gathered together on weekly basis to discuss about the development and to solve any possible dilemmas in the process.

7.5. Critical factors

All in all, Hilden considers the development and implementation of Yle+ as a success in the interviews. As one of the main purposes of change inside of Yleisradio was to have a positive impact on work itself, the technical part of the solution is viewed for having elements enabling this type of development.

‘The new solution offers a comprehensive support for different mobile devices and ecosystems, so there is no need to restrict what models employees choose to use. New tools will help to redress the issue of ‘shadow-IT’ when the employees are not, anymore, forced to share and save information into the internet’s consumer services (e.g. Dropbox or Facebook) due to inadequate technology’ (Hilden, 2015).

7.5.1. The purpose of adoption

As the chapters above show, Yleisradio had a clear motivation for engaging in transforming the company’s virtual tools and according to Hilden, this is the most fundamental and critical factor determining the level of outcome in these types of projects. Accordingly, there has to be a well-defined purpose and reason why an organisation decides to develop and implement new social software and office tools. As Hilden is well experienced with working on intranets, she argued that too often intranets are being developed for purposes that completely ignore the perspective of benefits. Instead of creating something for the sake of creation, there has to be a reason for *‘why the system is adopted?’*, *‘why the system is developed?’*, and *‘what is the purpose of the system?’*. There has to be a reason for the change and development.

‘The basic thing with intranets is that organisations do not want to spend any money on them nor to invest in them in any way. It is viewed as something that communications department wants, or something that the IT department wants. Most commonly, the

meaning and significance of intranets is not understood inside organisations. These types of projects are often regarded as somewhat useless projects instead of considering how intranet could contribute to business and communications of an organisation. There is no discussion about how people want to work.' (KMH 2016).

7.5.2. Committing the end-users in the adoption

The implementation of the new Social Intranet was carried out in a similar manner as the company did with Google Apps for Work ecosystem. In this, the company followed guidance provided by Google suggesting that the piloting phase of new software adoption should be executed with a small IT-team. This is then followed by the next piloting phase, where early adopters that would consists around 5-10% of the personnel, are taken on board. The piloting of the social intranet started in April 2015, when a group size of about 200 individuals were selected to be the so-called first users.

The pilot-users were included in the process already in the conceptualising phase before the start of the actual practical change. Additionally to the two main groups in charge of the overall process of digital transformation and selected group of pilot-users, different roles were given to several reference groups that shared responsibilities in different aspects of the change process varying from systematic software testing to providing support for end-users in following stages of the development when software was adopted in a company-wide level. The purpose of this was to gain valuable knowledge about the real situations that occur from the use of the new intranet with previously adopted Google tools and practice the implementation. The information was collected through systematic reporting on behalf of the pilot users as well as through interviews conducted by the the core- and control groups (Hilden, 2015).

'The personnel were strongly involved from the early stages of development all the way to its implementation by volunteers and also by individuals I sort of handpicked. We aimed to engage people from different departments of the company, from different

roles and responsibilities, as well as from different age classes. I personally invested in getting those people on board who had shown most criticism towards the old solutions. By getting them involved in the development and implementation, we had an opportunity to improve their experiences in the context and they would also, hypothetically, bear the best insights over the factors that should be developed. Most importantly, they were not afraid to express their views and opinions' (KMH 2016).

The company decided not to arrange any compulsory training events as these would be extremely challenging to be executed, and also because these would not fit organisation's operational models and culture. Alternatively, the company used a model of 70-20-10 for developing technical skills and learning. In this model, 70% of the learning takes place as part of everyday work, 20% by learning together communally and 10% by learning through specific and organised training. Additionally to the team-based and face-to-face learning, the discussion forum in the old intranet was kept open for the purpose of presenting questions and providing answers and support for the use. One major factor for this process was the creation of virtually located 'Google Tips' community inside Yle+, where people had the opportunity to search assistance regarding the usage of new office tools. Three days after the new Social Intranet went live throughout the whole company, the support community had already more than 500 members and all the questions that were presented there, were acknowledged and given an answer. Although some individuals are used the have training and instructions collectively and centrally, community-based learning is witnessed for being effective and favoured inside of Yle (Hilden, 2015).

'Suddenly, it turned out to be that people were assisting each other's despite the fact that no one of us thought of themselves being a true expert on the issue and tasks in hand. The community is characterised by significantly low thresholds for asking questions and assistance as well as giving advice. People are telling each other if they have been faced with similar challenges and problems and this way they share information and knowledge how they have managed to solve these problems. It

is crucial to share information and knowledge and with our old systems, this would have never been possible to achieve' (KMH 2016).

In the context of engaging people to the process, Hilden highlights the important role of managers as enabling the learning and adjustment through arranging time and resources for consultation and assistance. As the previous point calls for capable people that are in managerial roles, it is important for those that are in charge of the implementation to understand the significance of these people as determinant factors influencing the level of acceptance and learning on the individual level.

7.5.3. Problems with attitudes and skills of personnel

Despite the effort of Hilden and other individuals responsible for the development and implementation of Yle+ engaging and committing personnel into the project, the large size of the organisation characterised by personnel varying between their age, gender, technical skills and attitudes generated few challenges to tackle. The average age of personnel in Yleisradio is 47 and according to Hilden, it was somewhat surprising to notice that quite many of the people required technical assistance in the beginning of the implementation.

'At first we evaluated that about 10% of the people are 'digitally excluded' or are at risk of leaving behind in technological development and work. The problem of technical skills is something that I consider to be the easiest to manage, but the real problem lies with the attitudes and emotions of people' (KMH 2016).

Hilden acknowledges that the reasons for one having negative attitudes towards the development and change can be many, but it is extremely difficult to locate these individuals as they often do not come forward with their insecurities and issues. *'We had to come up with a plan to help these people' (KMH 2016).*

7.6. Opportunities & challenges after the implementation

As previously stated, the development and implementation of Yle+ was a success and according to Hilden, there are clear benefits drawn from the new platform. The following chapters will therefore focus on to the immediate and direct impacts of what Yle+ has managed to enable inside the organisation after the implementation. In this, we will get an insight on how social intranet has managed to create value and under what type of management. When the interviews moved on from the initial stages of the project towards observing the solution serving inside the organisation in present time (post-implementation), new challenges have been introduced since then. When some of the most crucial factors enabling the implementation were connected with the IT skills of personnel, general acceptance and change management, a greater importance is given to the environmental, cultural and managerial factors where Yle+ operates in. As literature has shown, individual behaviour is strongly influenced by impersonal factors whereas organisational capability to create value through the system and for the system is strongly dependent on the context it serves.

7.6.1. Communications & employee engagement in social work

As Google Apps for Work is an integrated part of social intranet Yle+, the entity is inevitably being influenced by continuous development of the software. Hilden points out that how this influences how the work is done inside Yleisradio is a challenging task. There is a constant requirement to identify these changes taking place by the external stakeholder and then consider how the changes in hand fit Yleisradio's concept and established ways and patterns of working. As Yle+ was implemented by giving great freedom to individual teams and departments to develop their own internal processes regarding communications and work in the virtual environment, these changes are likely to have different impact to different communities inside the company. The challenge from the perspective of communications department is to make sure that people understand what the changes are and that they are aware of them. Additionally, it has become more ambiguous to determine who is responsible for communications on each level of the company and how it is guaranteed that important messages are delivered and received in an effective and assured manner. As the

previously mentioned suggests, the social features of intranet allow people to interact and communicate more directly and therefore there has been a significant change and impact to the role of communications department.

‘For years now, we have been thinking about how to develop our role (communications department) to be something like more of a consulting type of guarantors...We could have never engaged in this type of social intranet development if we would have wanted to keep all the strings in our own hands or if we, as an organisation, would have had the type of culture where all the communications would have been only our responsibility’ (KMH 2017).

Although the communications department has witnessed a significant impact due to the implementation of Yle+, Hilden acknowledges that there is still a great responsibility in helping people to communicate effectively and assist in the best of their capabilities that internal communications inside the company works well. The characteristics and tasks have just been altered to be more focused on greater context.

‘We have suggested that managers should increasingly tell about their own work as people are often quite interested in knowing what is going on in the higher levels of organisation. They should engage more in the conversation and tell about their opinions, decisions and reasons behind the decisions. If information is not shared and communicated, people will never hear about them or if they hear, the decisions have already been made’ (KMH 2017).

Despite not going into micro level of investigating how different features of the software is used among the personnel of Yleisradio or making an effort for analysing how new virtual working spaces and tools have influenced internal communications of the company, one of the most obvious positive impacts of social software in this context has been introduced by improved opportunities for communications and collaboration. As Hilden noted:

'Yleisradio is a typical expertise organisation where people have all kinds of valuable information and knowledge. We perform similar projects and processes as other companies and therefore it is important to either find these people who possess the knowledge and skills that are required, or alternatively, find the information from the system if it is there. This is something that was emphasised among the staff. New tools and social intranet allows us to search people, information and knowledge as well as create an opportunity to bring forward one's skills, opinions, views and projects' There are great opportunities to create something together instead of conducting same types of tasks in different parts of the organisation without knowing about similar challenges, problems, ideas and observations' (KMH 2016).

7.6.2. Managerial opportunities & challenges

Where Hilden acknowledges that Yle+ has great potential in enabling the type of activities that were described above, the interviews showed that she also is personally concerned with how different managers and supervisors understand these opportunities as well as how they realise to harness the attributes of social intranet for managerial purposes. Once a year Yleisradio conducts a research that is focused on finding information about the organisation as a workplace, where one section deals with how personnel perceives their managers and their capabilities. The trend has been that quite regularly the management of the company receives poor grades from this study where issues related to trust and exemplary behaviour have been raised. Hilden however sees that social software could help managers to improve their personal influence and impression inside the company.

'In this type of social environment, the head of the company has a different type of opportunity to have an impact on what kind of image they give about themselves as persons and as managers. We have worked a lot with this issue and I think we will continue to work with it. We have advised and suggested examples for what

they could do (e.g. comment on channels and discussions, share information, like postings etc.), but we also went through how social software and new tools would fit into their respective roles inside the company' (KMH 2017).

Additionally to the quotation above, the managers have been encouraged to participate more in the virtual social environment, to give good feedback and bring positive things forward. According to Hilden, there are opportunities in the name of transparency and openness to bring oneself forward and this is also one way to enhance the social relationships, sense of unity and trust inside Yleisradio. This type of behaviour would also generate more reasons to use Yle+ and encourage to activity in virtual working environment.

The Head of Strategy of the Productions Department, Pihla Allos, shares similar views as Hilden when it comes to the potential of social intranet. She has personally found social intranet to be very useful in her own work whilst acknowledging that new digital tools require transformation in how work is conducted and how managerial attitudes, managerial actions and organizational culture influence the social intranet's value creation. Through her own attitude and leadership, Allos has successfully boosted the transparency, collaboration and modern 'coaching-themed' management method inside the organization. Yle+ has been an effective enabler for these.

'A large part of leadership and management work is about listening. People are competent to find resolutions and answers to their questions and issues...if one thinks that the manager should be a know-it-all person having the right answers to every question and capable to resolve all the issues brought up, then one does not do anything else than solve other peoples' problems.' (PA 2017).

The quotation above demonstrates well how Allos identifies her management style and role inside Yleisradio. She does not have any single or several teams allocated to her, but instead she uses networking skills and tools as she requires so that she finds the best and most motivated people that can help

her to fulfil her projects and responsibilities. Much of her ideology for work is built around the concepts of transparency and dynamism that are directly opposed to inflexible hierarchies and control where organisational limits and boundaries do not have a role anymore. According to Allos, Yle+ is a natural and highly useful tool to support the leadership and management style she is implementing also in the projects that are discussed in the following chapter. At the time of the interview in 2017, Allos had already had excellent experiences and use cases for Yle+ in project 'Uudistuva Pasila'. Encouraged by these experiences, Allos and her colleagues were taking / about to take the social and collaborative way of working even further in the less mature 'Luova Talo' project.

7.6.3. Projects "Uudistuva Pasila (Reforming Pasila Campus)" and "Luova Talo" (Creative House)

In 2015, Allos was assigned with a manager position for a project that was going to have an impact for more than 2000 Yle employees and 300-400 partners who are located in their Pasila-campus in Helsinki. Allos realised that this type of project that goes beyond organisational and departmental units would be a significant challenge especially from the communications perspective.

'As we had experienced already in the implementation of Yle+, every project that is strongly characterised by change and transformation, doubt and distrust is always present. Therefore, I really had to consider how to tackle the communications so that the project succeeds and that the people who are dependent on the information are satisfied. After all, effective and skilled communications are one of the key issues that every change project has to be taken care of' (PA 2017).

Allos decided to use Yle+ and establish a community for the project. She identified that this open and social platform was the best way to move forward as the communications involved both bigger informative messages in higher level as well as passing on

information in more practical context that would have an impact on employees' day-to-day life at the campus. With the community, she was also capable to get in touch with those that are influenced in the campus and exclude those who are not. After the community was created, Allos had to figure out how to get people's attention so that the community would get as many members as possible.

'I do not believe that you can ever force things to people. In the context of finding popularity for the Uudistuva Pasila community, we had to make it and its content so interesting that people would be drawn into it. Instead of pushing and forcing people, one has to generate a 'pull effect' by creating a demand for the content and material you provide in the community.' (PA 2017).

In order to achieve this, the project used different types of promoting material for the community. This material was shared through, for example, paper leaflets and notice boards where the key messages regarding the project were always displayed but which simultaneously emphasised that more information and discussion is available in the Yle+ community. The outcome of community promotion and efforts in creating a useful informative communications channel was excellent and by the time of the interview, the community had as many members as there were people being strongly influenced by the project.

Yle+ had enabled Allos to divide communications into smaller parts. Allos felt extremely positive about the opportunities to be more informative and more precise by having a platform enabling this type of better communications. If compared to more traditional methods of communications, Allos was certain that community members had definitely received more information in much more suitable forms and portions. Through the system and its social capabilities, she was also receiving both questions and input from the community members. By communicating and informing about larger entities in parts and in advance, the community was able to participate in the discussion with more fined down remarks and questions and then Allos still had time to generate more information and even further develop the project plan.

'I see that I have also made my own life easier with the usage of social and interactive tools. Through the system I can plan my communications in detail further ahead, make necessary comments and information adding if required, and then publish it all in a platform where one single message reaches hundreds. Social intranet also enables me to promote transparency and opens factors and reasons behind each decision. Every time there is a question or rumour spreading around in the company, Yle+ allows me to either provide answers by myself or tag colleagues to answer in case they have more input to the presented questions and concerns expressed. The system enables effortless and fast communications without unnecessary emails that bounce from sender to another.' (PA 2017).

It is clear that Allos has found Yle+ being an important enabler for project success in the context of communications that is one of the most important activities to manage effectively. In the 'Luova Talo' project, Allos and her colleagues had decided to take next steps in how they work and how they can work. The project consisted of more than 700 people and again, they did not share one common team identity due to the 'richness' of the people in terms of what they do, where they work and what are they responsible for. The project team and Allos were preparing for future strategical work and investment portfolio for the creative unit of Yleisradio. For this, the team decided to utilise Yle+ and get people involved, but this time go even further and aim for deeper engagement and participation of the people.

'Now we are running this experiment...when we now have these new and nice tools, let's make the strategical work as open and transparent as possible! This is pretty exciting and actually one of the goals of the project is to see if we can make this Yle+ community (which is created for the strategical work inside creative unit) so attractive that it attracts lots of active and involved people. Our goal and purpose is simply to do things in another way and differently than before...Let's not make decision and do work in small circles but instead, let's work openly, share

information and material that is yet to be finished. Hopefully we can this way engage people into discussions and generate the collaboration for strategical work. I believe that the outcomes would be much better if people were committed and would have more information available to them' (PA 2017).

8. Discussion

The purpose of this chapter is to present further analysis about the case study and engage in a discussion where key information of the study is combined with the literature review of this thesis. To achieve this, we will look back into the three research questions and use these as a framework for systematic approach. To start, we will focus on the pre-implementation phase of the project and investigate (Q1): *“What are the most important aspects and challenges to take into consideration in the design and implementation project of social virtual tools, so that the organisation would have favourable basis for exploitation of the IT and its’ potential in finding true return on investment in the future?”*. All in all, the interviews resulted in the apprehension that the pre-set goals for the development were effectively met inside Yleisradio and that the company had managed to find ways of working that support the value creation of new ICT solutions. Although the development in the ‘way-of-working’ seemed as something that was easy for the organisation and that it became somewhat naturally as the development was built upon what the employees wanted, the project team ensured what one should know and consider whilst working in the virtual environment by training, basic guidance and frameworks.

At the core of the whole development in Yleisradio was the intention of further boosting the company culture towards openness and transparency and to develop a virtual working environment that would improve internal communications between professionals regardless of their role and position in the company. Already the previous intranet was given the role of adding value to the actual day-to-day work and Yle+ with new Google tools were identified for further supporting the type of identified development requirements. Although the utilisation and true value of social intranet and social virtual tools becomes a much complex topic after the implementation, Yleisradio has clearly identified that solution's usefulness and easiness of usage are the first issues to be considered. The company invested great efforts in understanding what the personnel of the company wants and requires. This way the project team already implemented the type of culture and way of working that was pursued with the adoption of new ICT. The team made sure that personnel was involved from the beginning of the project and that the development is something that majority of the

company desired. Instead of *'knowing better what is required'*, the collaborative approach for the development made sure that new virtual tools are adopted for the users.

Chapter 4.1. (New technology signifies change) presented that similar development projects may not be as easy as they are often regarded being for. The adoption of IT should be acknowledged for being more than just a technical project and that high number of knowledge management system implementations are likely to fail due to misguided focus and lack of understanding the human factor in the equation (Ale et al. 2014; Li et al. 2016; Hislop 2013). In Yleisradio's preliminary steps, the role of new intranet and virtual tools were clearly identified, the development had clear strategical purpose and by involving the whole personnel in the development and the project team established an excellent basis for the building value for new ICT by efforts in understanding how the development and tools would have higher probability to achieve user acceptance and supportive user behaviour. Instead of determining that new ICT is required and deciding what type of development suits the company the best, by studying the personnel the company carried out critical steps in assuring that the development is both likely to be accepted and embraced among the users. By having a clear vision for virtual work, we can identify that Yleisradio had a clear vision for the development of virtual work. Instead of allowing technology to determine the work that can be carried out inside the organisation (Aidemark 2004), the recognition of demand and future vision enabled the company to position itself for driving the development. Moreover, models such as TAM and UTAUT (Kim 2012; Venkatesh et al. 2003) are excellent tools to help us in understanding the key determinants which organisations should truly make themselves sure of in similar projects that Yleisradio undertook. Both of the models identify subjective norm and social environment, among others, influencing the individual behaviour. This study suggests that both the adoption and utilisation of social intranet is dependent to great extent on these attributes.

In the context of change management, the pre-implementation phase and approach to the development in Yleisradio can be identified to contribute positively to the first determinants of successful change projects. The literature in chapter 4.2. suggests that before the change occurs and takes place inside an organisation, it is important to assess the motivation for change, build awareness among the people who are

impacted by the change and most importantly, create desire for the change (Hiatt 2006). From the perspective of change management, the project team scores high in change preparation.

When we move on to research questions two (Q2): *“What type of organisational context and culture is favourable for greater utilisation and value of social intranet?”* and three (Q3): *“What type of managerial actions and organisational transformation is required for achieving greater return on technological investment that is highly dependent on social activity?”*, we can admit that the research method of this thesis is unlikely to provide us with comprehensive list of facts and findings. Although the research pointed towards managers’ role in showing leadership and exemplary behaviour in the creation of value and purpose of the solutions, these findings should not be taken for granted in another context and environment. We come up to this conclusion as the interviews were conducted with only two professionals inside Yleisradio. Although the interviewees can be identified, without a doubt, having deep expertise and experience in what comes to the project and utilization of new ICT in their work, it is important to remember that their experiences and perceptions about Yle+ are personal and engaged into their role inside the company. Therefore, we have to be careful to make too much generalisations in terms of implementing the experiences and views to other roles and individuals in Yleisradio, not to mention other organisations. This being said, the information received from the interviews truly revealed that the general effort in determining and understanding the true value of social intranet should always be tied in an organizational context as suggested in the literature (Aidemark 2004; De Toni et al. 2011); Orlikowski 2007, cited in Newell 2009).

As the general comprehension from the literature suggests that modern information and knowledge management is not just the management of databanks, but more of a process involving human behavior and social activity, the case study of this thesis goes in correlation with the scholars’ work presented in chapter 4.5 (e.g. Han et al. 2015; Li et al. 2016; Wang and Wang, 2016; Deans 2010; Chen and Huang, 2007). The social intranet solution does not provide high return on investment by itself. It should not be considered as something that can be just adopted and practitioners should not assume that social intranet can solely deliver the organisation into the future state.

Both Allos and Hilden expressed that the implementation of Yle+ has had a positive impact in how collaboration and communications takes place inside the organisation. As one of the driving forces for development was to boost employee engagement, achieve more effective and effortless communications and improve the organisation's information and knowledge management, the pre-implementation phase provided a healthy basis for realising these benefits. The change in communications department's role that developed to be more of a coaching- and supportive-type reflects that the responsibility of internal communications has spread wider into the organisation. The interviewees also acknowledged the benefits of Yle+ providing opportunities for bottom-up communications and cross-departmental collaboration that is not tied into organizational roles and responsibilities.

Moreover, a new environment for virtual work was identified for creating opportunities for bringing forward individual competencies and 'know-how', but the interviewees have clearly acknowledged that new approaches to management and work could be the key for achieving these goals in greater level. Much of the role of social intranet in virtual work is dependent on the context and organisational environment. As the work of Lohikoski and Haapasalo (2013) and Lohikoski et al. (2014) enables us to understand how virtual work can provide both opportunities and challenges for knowledge transfer and collaboration, this study suggests that social intranet could have the potential of both diminishing the challenges identified in figure 6. and providing support in tackling the challenges of equivocality and uncertainty that were presented in figure 7. The value and role of social intranet is strongly determined by users and more specifically, by organisations capability to utilize its opportunities in project work and strategical objectives. Much of its potential is tied in organisation's and individual's ability to come up with cases, methods and processes how it can be utilised. Some of these opportunities and use-cases are more obvious, natural and easy to spot, but some may require further cultural changes inside the organisation as described above. These opportunities are likely to be generated by management inside an organisation as managerial roles can be viewed for having greater influence and power in influencing the organisational development and culture through leadership as suggested by Deans (2010) (cited in Han et al. 2015).

The expansion of the research of this thesis could be to include more interviews with additional study participants inside the same organisation. This would give us a more comprehensive understanding over the complex topic and increase our knowledge about the potentiality and value of social virtual tools. Similarly, further research could provide us with more information about the challenges in the context of organisational culture and individual behaviour that can have negative influence towards solution utilisation. Despite the limitations identified above, the research allows us to contribute in collecting information and knowledge about challenges and opportunities of organisation using social software on practical level. Therefore, the research can be identified for providing valuable insight for our efforts in understanding the relationship of social ICT, virtual work and organisations. As the literature highlights the importance of organisational culture and behaviour individual actors in the creation of usage-supporting environment, the study suggests that managers are in key position in transforming the collaboration into the next level and finding additional use cases for social intranet. Although the social intranet can be viewed for creating value by enabling informal communications and boosting more efficient information and knowledge flow, the efforts of Allos and her colleagues are a great example of how users can find deeper strategical benefits for the solution by adjusting their approach to management and decision making inside the company. The interviews revealed that the post-implementation phase and further utilisation of the solution requires new managerial approaches and culture. By developing the way work is done inside the organisation, social intranet could generate opportunities that are in correlation with the original vision of the company development but were not under the original scope of the adoption on practical level. As the goals for the system adoption was driven by organisational requirements, the work of Allos shows a minor transformation in the approach towards looking into what type of work the ICT enables to be carried out whilst simultaneously baring the potential of having greater impact to the culture of Yleisradio.

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